

CLAIMS

1. A cloned polynucleotide having the function of a transcriptional regulatory sequence (trs) and comprising:
 - (a) a polynucleotide fragment having at least 70% identity to the polynucleotide of Seq ID No. 2;
 - (b) a polynucleotide which is complementary to the polynucleotide of (a); or
 - (c) a polynucleotide comprising at least 15 sequential bases of the polynucleotide of (a) or (b).
2. A polynucleotide according to claim 1 wherein the polynucleotide fragment has at least 80% identity to the polynucleotide of Seq ID No. 2.
3. A polynucleotide according to claim 1 or 2 wherein the polynucleotide fragment has at least 90% identity to the polynucleotide of Seq ID No. 2.
4. A polynucleotide according to claim 1, 2 or 3 comprising the polynucleotide of Seq ID No. 2.
5. An isolated polynucleotide comprising the transcriptional regulatory sequence of CD68.
6. An expression cassette comprising a polynucleotide according to any one of the preceding claims and a polynucleotide operatively linked thereto encoding a heterologous polypeptide.
7. An expression vector comprising the expression cassette as claimed in claim 6.
8. A host cell comprising a vector as claimed in claim 7.
9. A process for producing a polypeptide which process comprises transforming or transfecting a cell with a vector as claimed in claim 7 and culturing the transformed or transfected cell.

10 A vector for the integration of an heterologous gene into the genome of a mammalian host cell such that the gene may be expressed in the host cell, the vector comprising a transcriptional regulatory sequence,
5 the said gene and a Locus Control Region capable of eliciting host cell-type restricted, integration site independent, copy number dependent expression of said gene, characterised in that the Locus Control Region is located within a region extending from 14kb upstream to 25 kb downstream of the CD68 gene.

10 11 A vector as claimed in claim 10, wherein the Locus Control Region is located within a region extending from 5.5 kb upstream to 12 kb downstream of the CD68 gene.

12 A vector as claimed in claim 11, wherein the Locus Control Region is located within a 3 kb BstX1-BstX1 locus immediately upstream of
15 the CD68 gene.

13 A mammalian host cell selected from macrophages, monocytes and dendritic cells and their precursors, transformed with a vector as defined according to any one of claims 10 to 12.

14 A mammalian host cell as claimed in claim 13 which is a
20 mature macrophage.

15 A method of producing a polypeptide, which method comprises culturing a mammalian host cell according to claim 13 or claim 14.

16 A method of modifying mammalian stem cells and progenitor
25 cells comprising transforming mammalian stem cells with a vector according to any one of claims 10 to 12.

17 Mammalian stem cells and progenitor cells modified as claimed in claim 16, for use in the treatment of a disease condition in a human or animal body.

30 18 Use of a vector according to any one of claims 10 to 12 or

mammalian stem cells or progenitor cells according to claim 17, for the manufacture of a medicament for the treatment of a disease condition of the human or animal body caused by a gene deficiency.

19 An isolated polypeptide which is expressed under the control
5 of a CD68 transcriptional regulatory sequence.

20 An isolated polypeptide which is expressed under the control
of a transcriptional regulatory sequence comprising a nucleotide sequence
as claimed in any one of claims 1 to 5

21 A polynucleotide as claimed in any one of claims 1 to 5, an
10 expression cassette as claimed in claim 6, an expression vector as claimed
in claim 7 or a host cell as claimed in claim 8 for use in medical therapy.

22 Use of a polynucleotide as claimed in any one of claims 1 to
5, an expression cassette as claimed in claim 6, an expression vector as
claimed in claim 7 or a host cell as claimed in claim 8 in the manufacture of
15 a medicament for use in therapy.